

ZOOLOGY.—*Stored nutritive materials in the Trophosome of the nematode, Agamermis decaudata (Mermithidae).*¹ B. G. CHITWOOD and LEON JACOBS, Bureau of Plant Industry.

During parasitic development, colorless globules accumulate in the intestine of *Agamermis decaudata*, Cobb, Steiner and Christie, 1923, and during adult free-living life these globules gradually disappear. Since the greater part of the globules are insoluble in alcohol-xylol, Rauther² pointed out that they are not fat. In the present note the results of our observations on the globules of this *Agamermis* are presented.

Strong Flemming's mixture or osmic vapor blackens only a small proportion (about 10 per cent) of the globules; alcohol, xylol, ether, and chloroform remove about the same proportion of globules, and after such treatment osmication is without effect. Nile blue sulphate, prepared by the method of Smith,³ stains the majority of the globules blue (indicating a fatty acid according to Smith) but a small proportion red (indicating a neutral fat according to Smith); only blue-coloration is observed after alcohol extraction. Scharlach R stains all globules. From these results it appears that a small proportion of the globules are neutral fat and that the majority contain some fatty acid but do not behave as do normal fatty acids.

Material previously extracted with alcohol contains most of the original globules. These give positive xanthoproteic and ninhydrin reactions and stain with gentian violet or haematoxylin, indicating their protein nature. When hydrolized in 10 per cent KOH the surface tension of the solution is reduced about 10 per cent as indicated by capillary tests with 10 per cent KOH as a control, the readings of the tests being 48 and 53 mm and the controls 52 and 59 mm respectively. This reduction in surface tension indicates the presence of a fatty acid.

Artificial gastric juice removes the majority of the globules from untreated material, supporting the conception that they are a protein. Hydrolysis with 10 per cent HCl produces the same effect. The residual globules after such treatment are stained red by Nile blue sulphate, and black with osmic acid, confirming the conclusion that they are a neutral fat.

The above observations show that the stored nutritive materials

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² Zool. Jahrb., Abt. Anat. 23 (1). 1-76. 1906.

³ Jour. Path. and Bact. 12: 1. 1907.

of *Agamermis decaudata* are of two types; namely, a protein with reactions of a conjugated fatty-acid-protein, and a neutral fat. It is also indicated that Scharlach R and Nile blue sulphate are not specific tests for uncombined fat or fatty acid but may indicate the presence of a fatty-acid-protein complex. Substances which are stained by Scharlach R or Nile blue sulphate must be shown to be extractable in fat solvents, to be non-digestible in artificial gastric juice, and to give negative xanthoproteic and ninhydrin reactions, before it can be concluded that they are free fatty acids or neutral fats.

Preliminary observations indicate the presence of protein (?-fatty-acid-protein) globules in *Rhabditis strongyloides* Schneider (Rhabditidae), and *Ditylenchus dipsaci* (Kühn) Filipjev (Tylenchidae).

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ZOOLOGY.—*Nomenclatorial changes involving types of polychaetous annelids of the family Nereidae in the United States National Museum.*¹ OLGA HARTMAN. (Communicated by MARY J. RATHBUN.)

An examination of the types of polychaetous annelids deposited in the U. S. National Museum indicates a necessity for several changes of names in the family Nereidae. The following alphabetical list gives the original name, reference, type locality, museum catalog number, and revised name. Synonyms are enclosed in brackets.

[*Ceratonereis alaskensis* Treadwell] (Proc. U. S. Nat. Mus. **60**: 1-3, figs. 1-5, 1921) from Alaska, U.S.N.M. no. 19029, is *C. paucidentata* (Moore).

Ceratonereis bartletti Treadwell (Jour. Wash. Acad. Sci. **27**: 30-31, figs. 8-13, 1937) from western Greenland, U.S.N.M. no. 20224, is close to, if not identical with, *C. hircinicola* (Eisig). Area I of the proboscis lacks teeth, area III has a circular patch of 7 teeth; the jaw has 5 oblique teeth.

Ceratonereis gracilis n. comb., for *Nereis gracilis* Webster.

Ceratonereis irritabilis, n. comb., for *Nereis irritabilis* Webster.

Ceratonereis paucidentata, n. comb., for *Nereis paucidentata* Moore, includes *Ceratonereis alaskensis* Treadwell.

Ceratonereis pusilla, n. comb., for *Nereis pusilla* Moore.

[*Heteronereis caeruleis* Hoagland] (Bull. U. S. Nat. Mus. **100**: 608, pl. 47, figs. 13-16, pl. 48, figs. 1-4, 1920) from the Philippine Islands, U.S.N.M. no. 18948, is a *Perinereis*. It is close to *P. camiguina* Grube, but differs in that the areas V and VI of the proboscis have numerous small flat plaques in addition to the single series of transverse plates characteristic of the genus *Perinereis*, also, areas I and II lack paragnaths. *P.*

¹ Received November 1, 1937.